Picton, Ontario, September 25, 1893.

Joseph Redmond, Canadian Fishery Overseer.

Interviewed by Mm. Wakehaus VR. Rathbaw.

alewins

"Shad" become very thick in the Bay of Quinte, but are not so thick there as in the lake outside. They die in the Bay in the same proportion as outside. Occur and die in immense numbers. It would seem as though nearly all that came in died. Are washed up in windrows along the beaches. The larger sizes are 4 to 6 inches long. Those found dead would average mostly about 4 inches long. There are many smaller ones, about 2 inches long, or thereabouts. They are mixed in with the larger ones, but they do not seem to die to much extent. This fish has been abundant here about 10 years. The fishermen think they are now decreasing in numbers. They are more numerous some years than others.

Many of these "shad" are found on the lake shore in September. Never heard of their

occurrence in the winter. They come in again the following June. They die chiefly through July and August.

They are seined to be made into pumice during the months when they are most abundant, June, July and August. The dead ones are also collected along the shores for the same purpose

Purpue

There is a factory for pumice on Pleasant
Bay. The oil in first pressed out. Then the
solid matter is put into drying sheds with
glass roofs. Does not know whether anything
is mixed with them. Then pulverized. Sold
in Canada and the United States. Knows that
it is shipped to some large garden seed firms
in the United States. It is used by farmers
in Canada. Is called fish phosphate.

hot see

Fishermen think that whitefish and salmon trout have become less abundant in consequence of the appearance of these "shad." They invade the same feeding grounds in immense numbers. Does not think they have been of any

benefit to the fisheries. Does not know of any fish that feeds on them.

Sturgeon. night luis

For sturgeon they use mainly night lines in this district. Thinks they also use a net for them on the lake shore at Millers. for sturgeon both in the Bay of Quinte and on the lake side. Sturgeon are not so abundant that they can be fished for profitably with gill nets. The gill nets for sturgeon have about 10 inch extension mesh. The night lines are not licensed. Probably about 15 men fish for sturgeon in Prince Edward Co. Does not know of any decrease in sturgeon. Only 4 or 5 years that they have made any business of fishing for them.

U

Short.

Bass fishing is carried on principally at Smith's Bay and West Point, and throughout the Bay of Quinte. Can catch black bass anywhere along the coast of Prince Edward Co. Most of the bass fishermen do not spend much money in connection with their sport. Most of them do

not employ guides or boatmen. A few sportsmen come from away from this region, not over 25 as a whole during a season, whi might spend more money in their fishing than the natives.

There are not many men who make it a business to tend out as guides for pleasure fishing.

This class of fishing has not yet developed to a sufficient extent for that. There might be a field for such employment, but it has not been built up in Prince Edward Co.

As many as 8 or 10 Americans at a time, coming to this region for sport bass fishing, have put up at the Royal Hotel, Picton.

Hoops.

No hoop nets are used in this county,
except a few in Miller's Bay, Smith's Bay and
South Bay. Not a good quality of fish in these
bays. Last year there was a total of about
80 hoop nets set in the county, but the greater
number were in inland waters. This year there
are about 12 in waters connected directly with
the lake, and they are set in places where bass

Hooks.

do not occur. The Government decided that they should be used only in certain places (the above mentioned bays) and also limited their number. These bays have muddy bottoms and bass do not enter them. Does not think it for the best interests of the fisheries to reduce the number of these nets too much.

heads. Take also some pickerel, perch, pike, rockfish and sunfish.

Rels would go right through the mesh of the hoop nets. There is considerable demand for eels, and they are caught on night lines.

Bass are not taken in the gill nets.

They are not brought in from the fishery with such nets.

The market fishery in Prince Edward Co.

does not interfere in any way with the bass/

Does not think that the seining on the lake shore for whitefish, carried on some years ago, did any harm to the whitefish. Thinks

Bulkends
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Bassi

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that young whitefish are farther off shore than where the seines were used.

Peter Huff, Picton, Ontatio.

September 25, 1893. Interviewed by M. Wakeham VR. Rathbur.

Mr. Huff has had over 50 years practical Experience experience with the fisheries of Lake Ontario, most of that time engaged in fishing on the outer coast of Prince Edward County. He has only recently retired from fishing to reside in Picton, and still engages to some extent in the sale of fish.

The market fishes of the region are the whitefish and salmon trout, and practically all the coarser fishes to a greater or less extent.

The sport fishes are the black bass, maskinonge and pike.

The market fishery surrounds the entire gound, Prince Edward County. The fishermen are scattered at different places along the coast. The Ducks constitute an important fishing district to which several fishermen resort.

occupation Probably not 1/3 of the fishermen in this

county are entirely dependent upon fishing for a living.

market

The bulk of the catch goes to the Dake
Ontario Fish Co., at Cape Vincent, and the
Buffalo Fish Co., only a small quantity being
marketed in Picton, which is the principal
fish market in the county. During the summer
nearly all the catch goes to Cape Vincent.

In the fall a large part of the coars fish goes to Buffalo.

methods

The methods of fishing parsued now are as follows:

giels.

Gill nets are used for salmon trout, whitefish and pike.

Hoops.

Hoop nets are used for bullheads, pike, pickerel, sunfish and rock fish.

W.rd.

Hooks are used for eels and sturgeon.

d. Front

Salmon trout now afford the most important fishery in the county outside of the Bay of Quinte. It used, however, to be different.

Left They used to catch \$1,000. worth of whitefish

Decrease

to every \$10. worth of salmon trout. Used to take 700 to 1300 barrels of whitefish in a season and perhaps not over 10 barrels of salmon trout. Now with the same amount of tackle they would not take more than \$10. worth of whitefish on the same ground. Of salmon trout they now practically get more fish on the same ground than they used to.

grounds!

Now, moreover, they fish farther out into the lake than formerly, going out from 4 to 10 miles from land, for salmon trout. There are no whitefish on these outer grounds here.

Bay of Quinte

The bulk of the whitefish now taken are caught in the Bay of Quinté. They have fished for this species in the Bay as long as he can remember. It used to be very much more abundant there than now, and at one time it gave out entirely. The Bay, however, has gained greatly by the planting which has been going on.

wif. spanning

Whitefish are not so particular in their

opening

spawning ground as salmon trout. They spawn upon gravel and rock in 6 to 20 feet of water. Salmon Point was once the best spawning ground. They also spawned at West Point and from there down to Long Point. The grounds were all close to the shore. They do not come in to these grounds now.

The great spawning ground now is in the Bay of Quinte, principally between Deseronto and Belleville. The whitefish are not taken up there until toward the spawning season.

They do not spawn in the Bay below Picton, but are taken there while on their way up, and earlier in the fall than in the upper part of the Bay.

They begin to spawn about November 15, but may vary 3 or 4 days in the time of beginning. The bulk of the spawning is over in the course of 3 days and nights. It is at its height generally about November 17 or 18. A period of ten days will cover the entire

work

spawning season, including the variations.

There may be a few straggling spawners before and after that time, but only few. The spawning season is the same now that it used to be.

winter

quickly leave the spawning grounds, drawing off into deep water. There never has been any winter fishery for this species outside, but they have sometimes followed them out awhile. They do some winter fishing for whitefish in the Bay of Quinte, but only a few are taken. The bulk of them leave the bay as soon as they are done spawning.

Summer

The whitefish next appear in June, some being taken at the Ducks, Timber Island, etc. In former years they used to strike the outer coast of Prince Edward County about June 10, but they do not come in there now.

Last year (1892) they came in to the Bay of Quinte the last of August or first part of

September.

Season

The fishing for whitefish in this county is carried on during only about 2 months.

Bollom

The gill nets for whitefish may be set on any kind of bottom, mud, gravel, sand, rocks, etc., and always were. They were generally thickest in depths of 10 to 40 feet, but they do catch them in depths as great as 80 feet.

In the deepest water they get the fewest fish.

Depuths

Formerly they would come into shallow water about June 10, and remain there until the last of August. This was on the outer shore. June and July were the principal months when they were abundant in these places. They came there to feed, the food consisting mainly of little snails.

Food.

gills

seines

for catching whitefish. When he began fishing they used seines altogether. Gill nets first came into use 35 or 40 years ago. They gradually took the place of the seines, which

Decreese

finally went out of use altogether some 10 years ago.

Whitefish never decreased while only seines were used in their capture, notwithstanding the seining was kept up throughouthe spawning season.

gills.

Gill nets have been responsible for the great decrease of whitefish, and it took place by their tise as carried on before the present close season was enacted. These nets acted as fences to turn the fish away from their spawning and feeding grounds.

The law which is now in force is all right but it was enacted too late.

The principal former seining grounds were East Lake Beach (Little Sandy Bay), West Lake Beach, Wellington Beach and Willard's Beach. These were the only places in the county which amounted to anything in that respect. James Cronk used to seine some in the Bay of Quinte, but his seining operations never

amounted to much.

Secretary Secretary

Had seining continued up to dat, and had the gill nets been kept out, he thinks there would have been no decrease in the whitefish.

The lake from east to west is now full of them.

The seines were used out an extreme distance of only about 200 rods from the shore.

The mesh of these seines measured about 3 to 4 inches (extension) in the center, and about 5 to 6 inches (ext.) in the wings. The seines ranged in length from 80 to 125 rods, but the latter length was seldom used.

The gill nets have had a mesh of $4 \frac{1}{2}$ to 5 inches (extension). This has been the size all along.

Reproduction artificial

The eggs of the whitefish for hatching and planting in Lake Ontario have not been obtained in this lake for 10 or 12 years. They are now brought from the west.

The bulk of the fry are not planted in Lake Ontario where they should be. They

where the feeding grounds are. On the contrary, most of the planting has been done in the Bay of Quinte, which contains many predaceous fishes, which would feed upon the young.

Blook

The bloater whitefish is a deep water fish, occurring in depths of 100 feet, and more. It is very fat and soft. Has known of their existence ever since he was a boy. The reason they obtain more at present than formerly is that they now fish in deeper water.

come in

mesh

When they come into shallow water in the summer, the whitefish are not accompanied by many other fish. "They come in pretty clean of other fish." Different sizes, however, come in together, The small ones will all go through the gill nets. The law should not be changed to increase the size of mesh now allowed. A 4 1/2 inch mesh is large enough; 5 inch is too large. A 2 pound (dressed) fish would go through a 5 inch mesh. A 1 1/2

pound (dressed) fish would be retained in a $4\frac{1}{2}$ inch mesh.

Salmon

35 years ago caught sea salmon anywhere along the outer shore from Point Traverse west, in April. They would spear sometimes 5 to 25 in a night, using a torch. Were fished for here in no other way. They would remain about 3 weeks, or as long as the water remained cold, with some ice in the lake. Might have taken them in March if the ice had not interfered. These fish were in fine condition. with bright, clean surfaces. (Dr. Wakeham called attention to the fact that salmon did not enter the St. Lawrence River from the sea until May. This bears upon the question as to whether the salmon did not remain in the lake all winter).

In the fall the sea salmon entered the rivers at Newcastle and elsewhere, where they spawned.

They are still taken occasionally (nearly

every year) along the shores of the lake of
Prince Edward Co. One was taken last year.
The last one Mr. Huff obtained in his fishing
was taken 7 years ago on this shore. It
weighed 6 pounds.

Their weight in former years was generally from 5 to 18 or 20 pounds. Remembers one that weighed 37 pounds. This was the largest he ever saw.

close season

The close season for whitefish as at present provided for is all right.

Trout

The law is, however, entirely at fault in this particular as regards salmon trout. The month of October should be taken for this.

They spawn between October 15 and 25. White fish spawn just a month later. Brown backs spawn a month later than whitefish, or in the month of December. They are as near a white fish in appearance as can be and still be different from them. They run rather smaller.

Brownacks

Has caught them weighing as much as 4 pounds.

Occur on the same bottom as whitefish, but do

not fish for them now, as the weather is too

cold when they are present there. Only once
in a while are they seen in the market.

Sains-Quinte Herring wiff, Closederson Shuming

Has understood that drag seines are allowed to be used in Bay of Quinte above Deseronto, for herring, during the close season for whitefish, and that the latter areethereby taken in large quantities and sold. White fish do not get up into that region until about November 10 to 15. The herring come in there earlier. There should be a close season in that region to protect the whitefish. If it covered the period between November 15 and 25 it might be sufficient to protect the white fish while spawning, but would be better to have it a few days lenger both ways.

Henry

Herring go to this same place to spawn, and they are most abundant there at the same time as the whitefish. He thought this

herring was the cisco, but was not certain.

The above descrived practice of seining in the upper part of the Bay of Quinte through November has been going on ever since he was a boy. Whitefish caught there in November have been brought to Picton every fall, and have been offered to him to sell.

This seining is carried on all the way
from Deseronto to Belleville.

consitue consitue spenning The ripe (spawn running) females are poor and thin. The males, however, are in good condition at this time. It takes 10 days after spawning to fatten up the females.

Swigen wont and ages.

Has seen a peck of salmon trout eggs run out of the stomach of a single sturgeon when it was cut open. It was taken in shoal water where the salmon trout had been spawning in the fall.

Suckers

Sturgeon are the worst destroyers of the spawn of whitefish and salmon trout. Suckers follow next in this category. Other coarse

Pichuel pike

w.b. houl.

fish, such as pickerel, bass, pike, etc., also feed upon the fry and young of the same species

There are few of these coarse fishes on the outer spawning grounds of the whitefish and salmon trout, as at Wellington, etc., and it is in such places that the fry should be deposited by the Government.

If half the quantity of fry planted in the Bay of Quinte had been planted, instead, off the outer beaches, the number of whitefish in Lake Ontario would have been very greatly increased.

quinte

The whitefish at the present time are on their way up the Bay of Quinte, but are not yet far up. They have not reached the vicinity of Deseronto, and will not for sometime.

Jos many

Too much net is being fished in the Bay of Quinte.

gie nets.

The whitefish and salmon trout gill nets run as follows:

1 pound whiterish net amounts to about

25 rods. It is 12 meshes deep.

1 pound salmon trout net amounts to about
16 rods.

Rach boat may have anywhere from 10 to 50 pounds whitefish net, and 80 to 100 pounds salmon trout net. Ir. Huff said that while not all of this amount was supposed to be used at once, it might all the same be in the water together, although exceeding the quantity allowed by law.

John Soby, Picton, Ontario.

September 25, 1893.

Interviewed by m. Wakeham F. Rathbun,

Esperieue

A young man of means, who does much sport fishing, and is thoroughly acquainted with the region. His father and he own the Royal Hotel property, where we stopped, but do not run it.

Lo. J.

Justense!

artificial premiting

The fishermen have been fishing for white fish in the Bay of Quinte for at least 25 years. They catch many more whitefish now than they used to. He cannot say that they are more abundant, but thinks that artificial cultivation has helped to keep up the stock. They have been planting fry in this bay for a long period, and thinks plants are made here every year.

Pickerel Decrease

Of pickerel, on the contrary, there has been a reduction both in size and abundance.

Do not catch one fourth as many now as formerly

A 4-pound pickerel would be regarded now as a large one. They used to get them running up

to 8 and 10 pounds. The cause of this has been constant fishing, and no restocking. They are taken in gill nets, which have been set throughout the bay ever since he can remember, at least 25 years. This fishery is still going on. There is now a close season for pickerel, but he thinks that some nets are still kept down during that season. Pickerel are now so small, that if the size of the mesh were enlarged, scarcely any would be taken.

Quinte is for bass and maskinonge. These species are now pretty well protected, so far as regulations are concerned. Fishermen should not be allowed to take bass in nets, or to sell bass. If so taken they should be obliged to throw them back in the water. Bass are the only common game fish they have. and they should be reserved entirely for that purpose. The same remarks would also apply to maskinonge, although they are much scarcer.

The only sport fishing in the Bay of

Bass.

There are a number of fine places for taking bass throughout the Bay of Quinte.

The bass are larger in the bay than out in lake Ontario. In the lake they run from 1 to 2 pounds; in the bay up to 4 3/4 pounds.

These are the small mouth bass. Also have the large mouth bass in the bay, which run up to 6 and 7 pounds.

pieterel

Gill nets for pickerel and whitefish are set pretty widely throughout the bay.

Hoofe.

A good many hoop nets are set in some parts of the bay, where marshy areas occur, frequented by bullheads. Hay Bay is one of the most important places for this kind of fishing.

front

Salmon trout nets are not set in the Bay, with the object of catching that species.

Bullhard.

During certain times the black bass will enter the marshes. This is mainly after the bullheads and pike have come out. At such times they will lead into the hoop nets if they

are set; but probably not many are taken in the bay in this way.

Buss.

The black bass do not mesh in the white fish and pike gill nets. The mesh is too small for them.

Spaning

The bass protect their young like the bullheads, but cannot say where or at what seasons.

Season

In the Bay of Quinte bass fishing does not really begin until the middle of July. They will not take the bait readily before that time. The best bass fishing occurs during September.

Protection

His idea of the protection of bass would be to prohibit the netting of bass altogether, and the taking of bass by any means during their spawning season.

gies Hoops

The gill nets as used would not interfere with the bass; the hoop nets would to a certain extent. If bass were ever taken in any nets he would have it compulsory to return them to the water.

In this region maskinonge are taken mainly by trolling during August, September and October. They are very seldom gilled, and rarely, if ever, taken in hoop nets. None of the netting would disturb them unless it might be seining, but not more than 2 or 3 seines are operated in the bay. Does not think any change necessary in the existing law relative to the protection of maskinonge.

Protestion

Maskinonge go in to the marsh at the same time as the bass, and he thinks they spawn at that time.